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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,276

09/28/2005

Seiji Tawaraya

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EXAMINER

DUONG, TAI V

ART UNIT

PAPER NUMBER

2871

MAIL DATE

DELIVERY MODE

04/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,276	Applicant(s) TAWARAYA ET AL.	
	Examiner TAI DUONG	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4 is/are allowed.
- 6) ☒ Claim(s) 5 is/are rejected.
- 7) ☒ Claim(s) 6-9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/29/06; 5/11/07</u> . | 6) <input type="checkbox"/> Other: ____. |

T The abstract is objected to because it is not limited to a single paragraph.
Correction is required.

Claim 6 is objected to because the phrase "wherein the substrate for a liquid crystal display according to claim 1" is incomplete. Claim 7-9 are also objected for the same reason as that of claim 6. Correction is required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by Miyazaki et al (US 5,978,061)

Note Figs. 1-2 which identically disclose the claimed substrate for a liquid crystal display having at least a transparent substrate 31 and a columnar spacer 33 formed on the transparent substrate, the substrate for a liquid crystal display having a density of a number of the columnar spacers is 30 pieces/mm², which is within the claimed range from 15 pieces/mm² to 50 pieces/mm² (col. 7, lines 45-54). It is noted that the intended use feature in the preamble "being used in a liquid crystal display of 17 inches or more" has *not* given patentable weight.

Claim 1 is allowed over the prior art of record because none of the prior art discloses or suggests a substrate for a liquid crystal display comprising at least a transparent substrate and a columnar spacer formed on the transparent substrate, wherein the substrate for a liquid crystal display is a following amount of an initial

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deformation A obtained by measuring the columnar spacer by a following measurement method is 0.04 μm or more, and a following amount of a plastic deformation B is 0.7 μm or less wherein $A = X - Y$; $B = X - Z$ and wherein X, Y and Z are measured according to the methods as defined in claim 1. Claims 2-4 and 6-9 are also allowed since they depend on claim 1.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sumino et al disclose columnar spacers formed on a transparent substrate wherein the columnar spacers have an elastic deformation ratio [(elastic deformation amount/total deformation amount) x100] ranging from 40 to 60% and an initial deformation ratio [(initial deformation amount/original thickness) x100] ranging from 10 to 30%, at a temperature of 180 C degrees.

Any inquiry concerning this communication should be directed to Tai Duong at telephone number (571) 272-2291.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

TVD
03/08

/Dung Nguyen/
Primary Examiner, Art Unit 2871

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